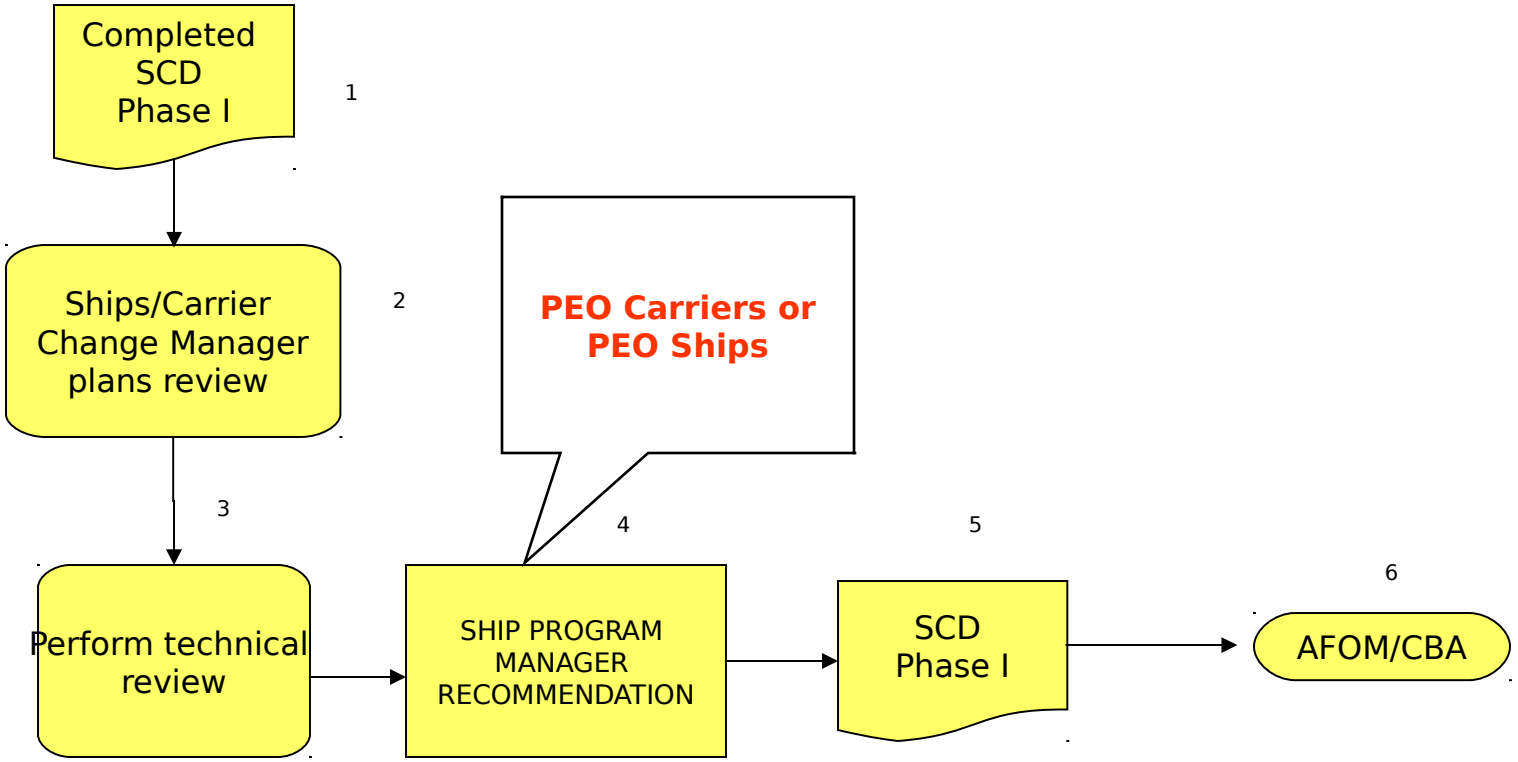
SHIPMAIN

Module 3: Entitled Process Decision Board Elements and Decision Aids

SHIPMAIN

Module 3A: Tech Assessment

Technical Assessment Phase I



Phase II(A)

What is Phase IIA?

- **A streamlined methodology to procure and install ship changes that meet specific, rigid criteria (next slides) for items that do not require assessment in all three phases leading up to Decision Point 3 (Procure)**
  - **Combines Phase Decision Points 2 and 3 and allows direct procurement of low-impact internal equipment or ship modification changes**
  - **Examples would include:**
    - **A change to the filter assembly on an equipment cabinet to improve ventilation,**
    - **Changes to door hinges to improve safety or maintenance access**

Form, Fit, Function logistical replacements of items due to a change in vendor or test equipment that is used to support maintenance or test evolutions are NOT required to enter the Entitled Process

However, if there is an intent to install any type of change that would require the expenditure of funds to develop the item , then it MUST enter the Entitled Process via an SCD

Phase II(a) - Guidelines

- **Guidelines for combining of phases II and III:**
  - **If the Scope is Internal Equipment Modification, all of the following criteria must be met:**
    - **The change can be accomplished without changing an interface external to the equipment or system**
    - **The change is made within the equipment or system**
    - **The change does not negatively impact Battle Force/Strike Force Interoperability**
    - **The change does not impact shipboard distributive systems, Ship Selected Records (SSRs) or interfacing equipment or systems, compartmental arrangement records; or Damage Control records.**

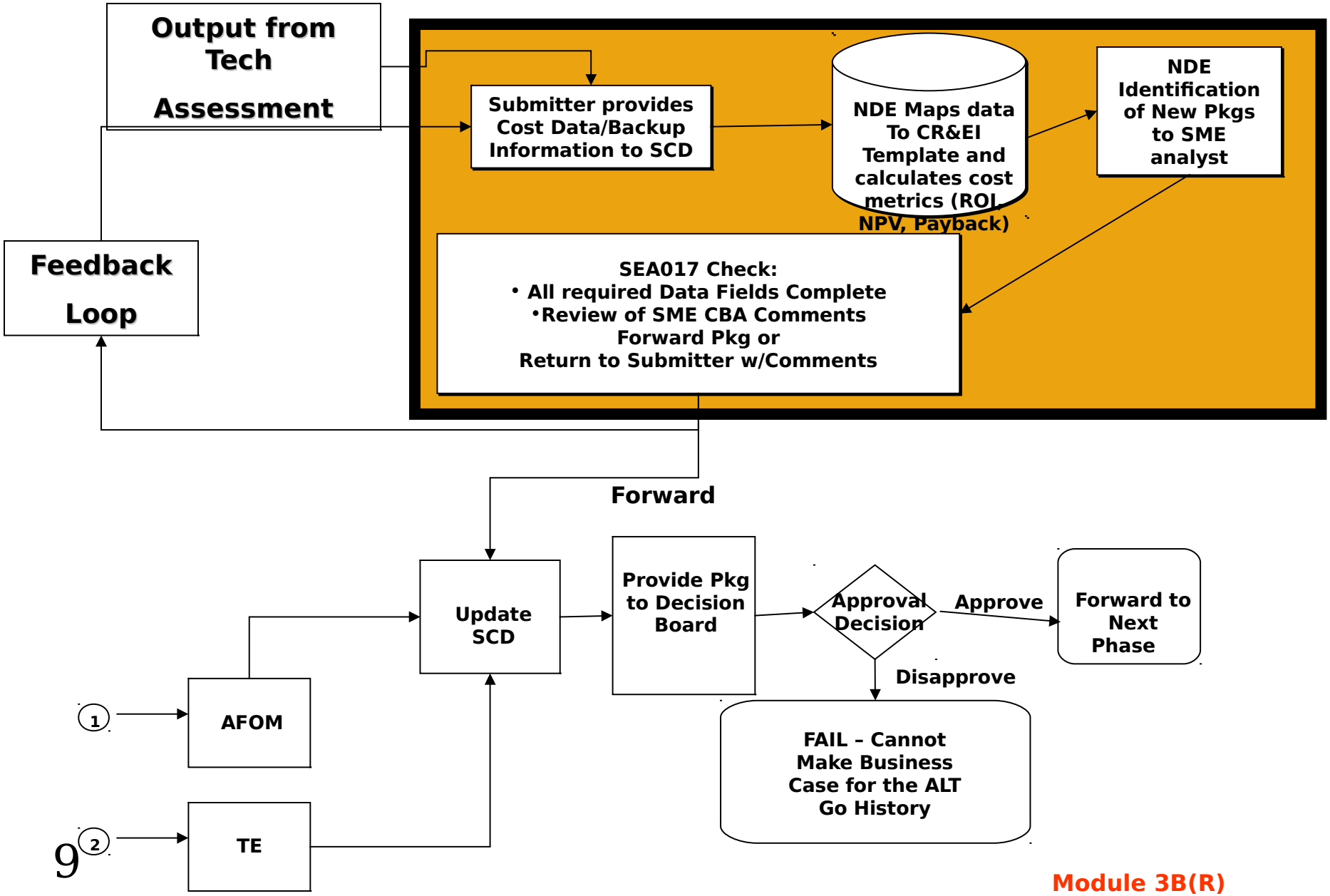
Phase II(a) – Guidelines (cont'd)

- **Guidelines for combining of phases II and III:**
  - **If the Scope is Ship Modification, all of the following criteria must be met:**
    - **The change does not negatively impact Battle Force/Strike Force Interoperability**
    - **The change does not impact ships stability records (weight & moment)**
    - **The change does not impact or alter the 3-dimensional footprint of the equipment being replaced**
    - **The change does not impact shipboard distributive systems, Ship Selected Records (SSRs) or interfacing equipment or systems, compartmental arrangement records; or Damage Control records**
    - **The change does not impact manning levels**

SHIPMAIN

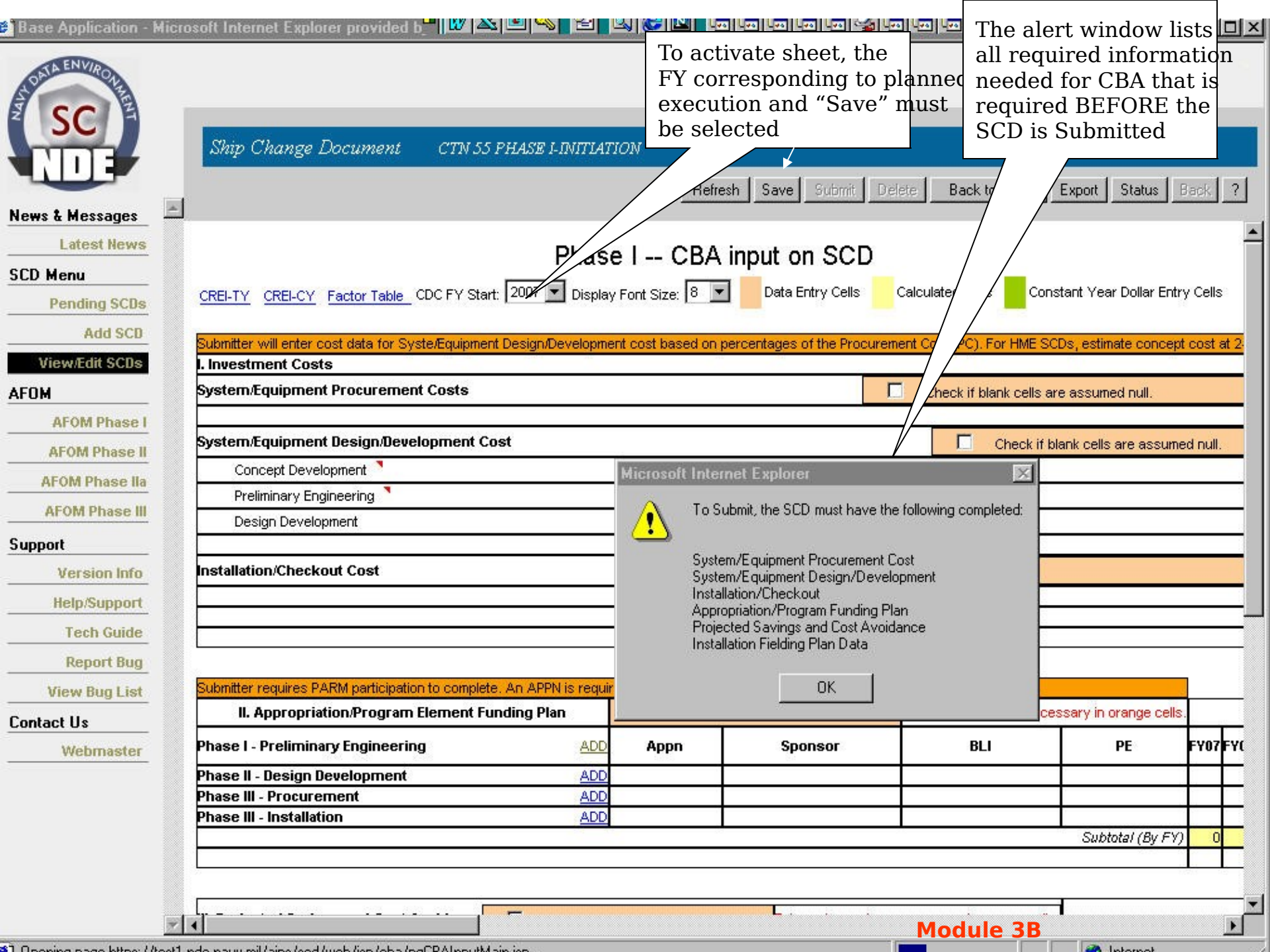
Module 3B: Cost Benefit Analysis (CBA)

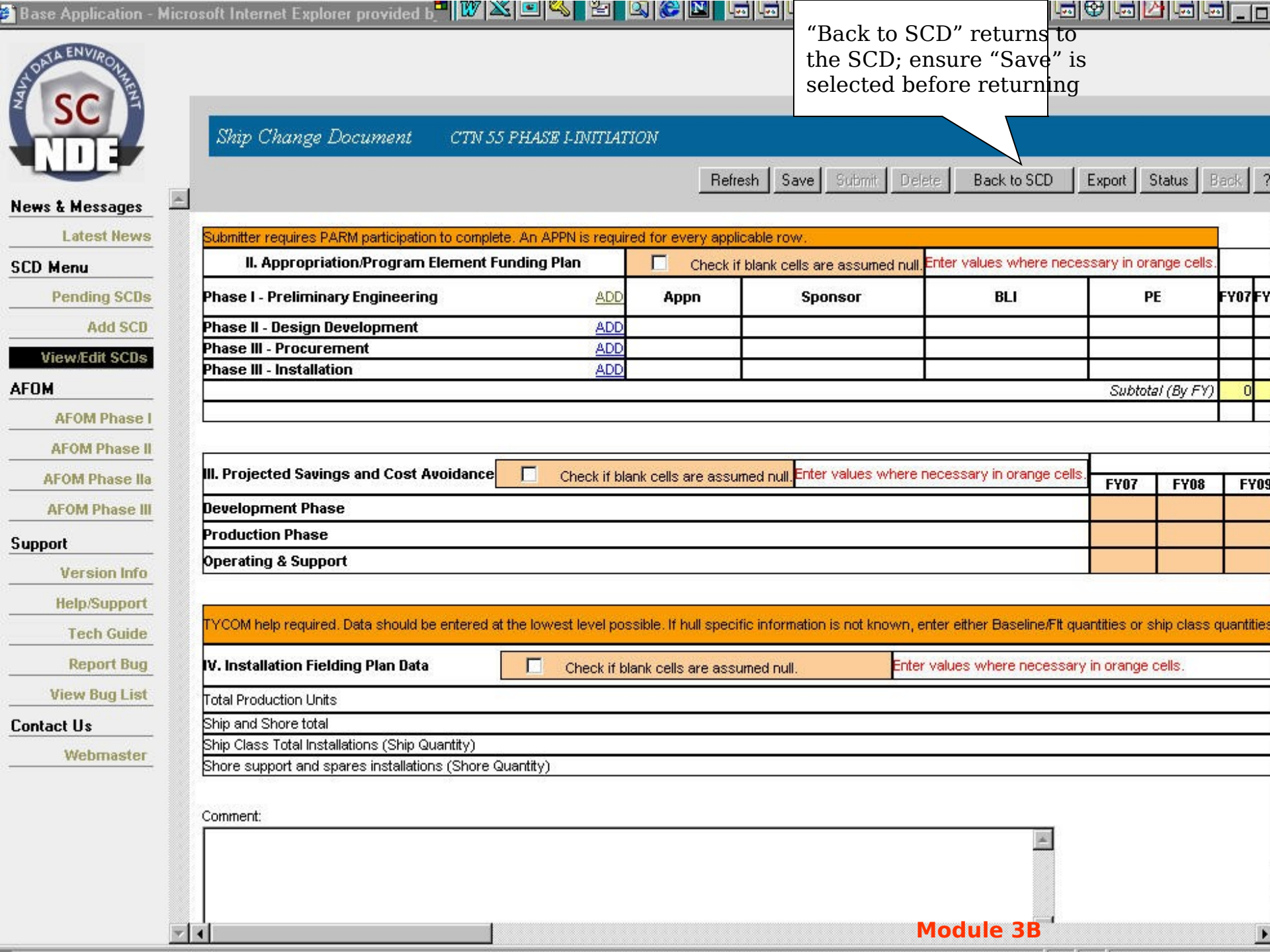
CBA Process Flow



Special CBA Definitions

- **ROI (Return on Investment): expressed as a ratio of how much return vs. how much invested or when the alteration "pays" for itself e.g……**
  - **"2.0" means two dollars returned or realized for every dollar initially invested in the alteration or modification**
  - **Must be expressed along with a "Payback" period to be meaningful**
  - **Negative ROI: The ship change never "pays for itself"**
    - **Cash outflow > Cash inflow**
- **Payback Period: The period of time it will take for the investment to be realized**
- **NPV (Net Present Value): The projected value of a dollar in a future year that is adjusted (discounted vs. inflation) back to the present year (today's cost)**
  - **Negative NPV means that cost of the alteration is greater than the savings realized**
    - **Negative "cash flow"**
    - **Typical for alterations that might provide a greater war fighting benefit, but not an economic benefit**
    - **A negative NPV will always drive a negative ROI**
- **TOC (Total Ownership Cost): The total acquisition and life-cycle cost throughout the life of the program ("cradle to grave")**


To activate sheet, the FY corresponding to planned execution and "Save" must be selected
The alert window lists all required information needed for CBA that is required BEFORE the SCD is Submitted
Base Application - Microsoft Internet Explorer provided b
NAVY DATA ENVIRONMENT
SC
NDE
News & Messages
Latest News
SCD Menu
Pending SCDs
Add SCD
View/Edit SCDs
AFOM
AFOM Phase I
AFOM Phase II
AFOM Phase IIa
AFOM Phase III
Support
Version Info
Help/Support
Tech Guide
Report Bug
View Bug List
Contact Us
Webmaster
Ship Change Document
CTN 55 PHASE I-INITIATION
Refresh
Save
Submit
Delete
Export
Status
Back
?
Phase I -- CBA input on SCD
CREI-TY
CREI-CY
Factor Table
CDC FY Start:
Display Font Size:
Data Entry Cells
Constant Year Dollar Entry Cells
Submitter will enter cost data for Syste/Equipment Design/Development cost based on percentages of the Procurement
I. Investment Costs
System/Equipment Procurement Costs
Check if blank cells are assumed null.
System/Equipment Design/Development Cost
Check if blank cells are assumed null.
Concept Development
Preliminary Engineering
Design Development
Installation/Checkout Cost
Microsoft Internet Explorer
To Submit, the SCD must have the following completed:
System/Equipment Procurement Cost
System/Equipment Design/Development
Installation/Checkout
Appropriation/Program Funding Plan
Projected Savings and Cost Avoidance
Installation Fielding Plan Data
OK
Submitter requires PARM participation to complete. An APPN is requir
cessary in orange cells.
II. Appropriation/Program Element Funding Plan
Phase I - Preliminary Engineering
Phase II - Design Development
Phase III - Procurement
Phase III - Installation
ADD
Appn
Sponsor
BLI
PE
FY07
Subtotal (By FY)
Module 3B


Base Application - Microsoft Internet Explorer provided b
"Back to SCD" returns to the SCD; ensure "Save" is selected before returning
Ship Change Document
CTN 55 PHASE I-INITIATION
Refresh
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Submit
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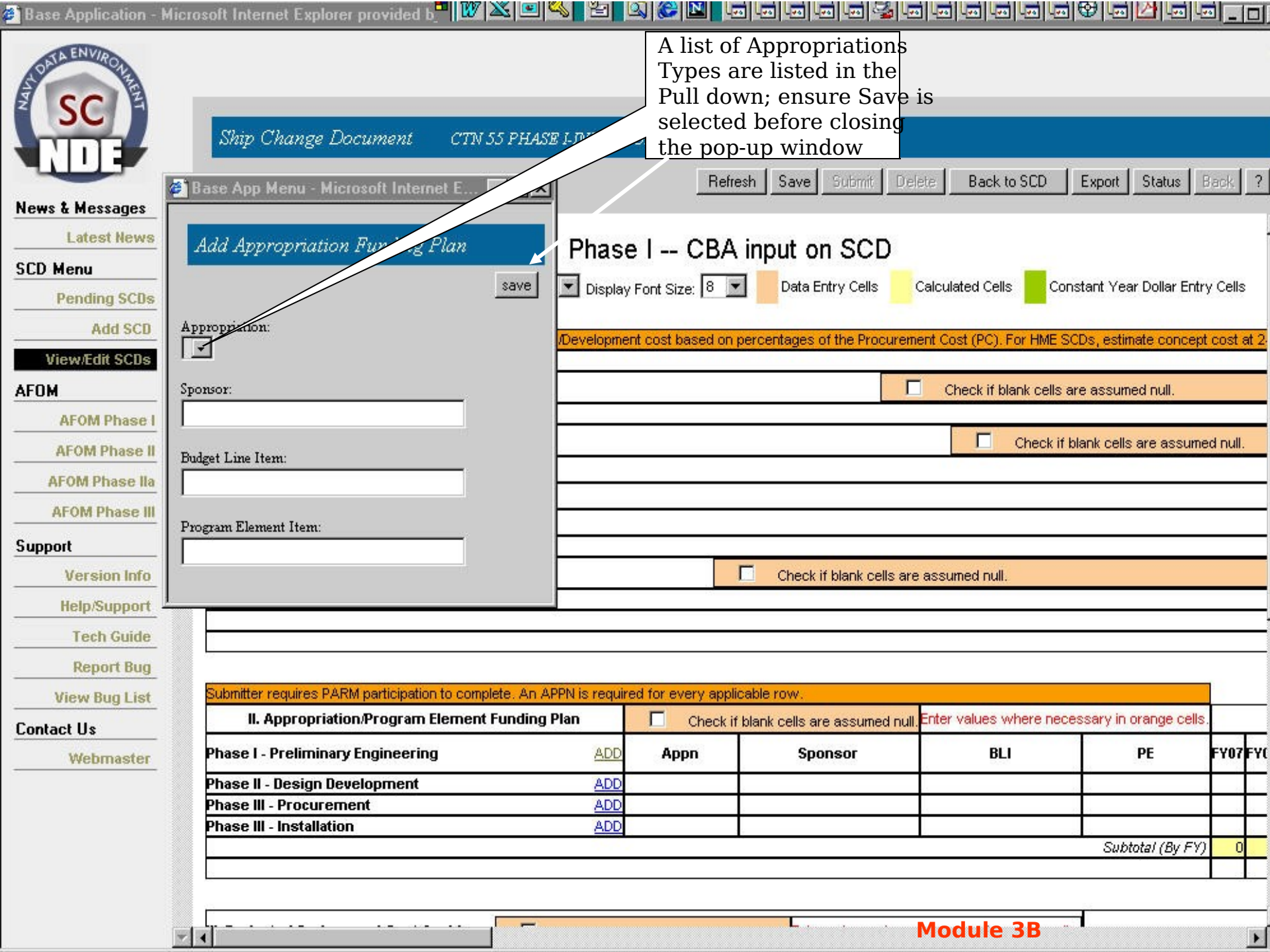
Back to SCD
Export
Status
Back
News & Messages
Latest News
SCD Menu
Pending SCDs
Add SCD
View/Edit SCDs
AFOM
AFOM Phase I
AFOM Phase II
AFOM Phase IIa
AFOM Phase III
Support
Version Info
Help/Support
Tech Guide
Report Bug
View Bug List
Contact Us
Webmaster
Submitter requires PARM participation to complete. An APPN is required for every applicable row.
II. Appropriation/Program Element Funding Plan
Check if blank cells are assumed null.
Enter values where necessary in orange cells.
Phase I - Preliminary Engineering
Phase II - Design Development
Phase III - Procurement
Phase III - Installation
ADD
Appn
Sponsor
BLI
PE
FY07
Subtotal (By FY)
III. Projected Savings and Cost Avoidance
Development Phase
Production Phase
Operating & Support
FY08
FY09
TYCOM help required. Data should be entered at the lowest level possible. If hull specific information is not known, enter either Baseline/Flt quantities or ship class quantities
IV. Installation Fielding Plan Data
Total Production Units
Ship and Shore total
Ship Class Total Installations (Ship Quantity)
Shore support and spares installations (Shore Quantity)
Comment:
Module 3B


A list of Appropriations Types are listed in the Pull down; ensure Save is selected before closing the pop-up window
Base Application - Microsoft Internet Explorer provided b
Ship Change Document
CTN 55 PHASE I-DI
Refresh
Save
Submit
Delete
Back to SCD
Export
Status
Back
?
News & Messages
Latest News
SCD Menu
Pending SCDs
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AFOM Phase II
AFOM Phase IIa
AFOM Phase III
Support
Version Info
Help/Support
Tech Guide
Report Bug
View Bug List
Contact Us
Webmaster
Base App Menu - Microsoft Internet E...
Add Appropriation Fun g Plan
save
Appropriation:
Sponsor:
Budget Line Item:
Program Element Item:
Phase I -- CBA input on SCD
Display Font Size: 8
Data Entry Cells
Calculated Cells
Constant Year Dollar Entry Cells
/Development cost based on percentages of the Procurement Cost (PC). For HME SCDs, estimate concept cost at 2
Check if blank cells are assumed null.
Check if blank cells are assumed null.
Check if blank cells are assumed null.
Submitter requires PARM participation to complete. An APPN is required for every applicable row.
II. Appropriation/Program Element Funding Plan
Check if blank cells are assumed null.
Enter values where necessary in orange cells.
Phase I - Preliminary Engineering
ADD
Appn
Sponsor
BLI
PE
FY07
Phase II - Design Development
ADD
Phase III - Procurement
ADD
Phase III - Installation
ADD
Subtotal (By FY)
0
Module 3B

News & Messages
Latest News
SCD Menu
Pending SCDs
Add SCD
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AFOM
AFOM Phase I
AFOM Phase II
AFOM Phase IIa
AFOM Phase III
Support
Version Info
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Tech Guide
Report Bug
View Bug List
Contact Us
Webmaster

Ship Change Document *CTN 55 PHASE I-INITIATION*

Refresh | Save | Submit | Delete | Back to SCD | Export | Status | Back | ?

Submitter will enter cost data for one ship install, one hull. To Complete TY$ would be entered as a total of then year $ beyond FY14. Sponsor of SCD would convert To

nown.	Then Year Dollars (TY$) in Thousands								
	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	F
Costs	0	0	0	0	0	0	0	0	
t Cost	0	0	0	0	0	0	0	0	
t Cost	0	0	0	0	0	0	0	0	
y FY)	0	0	0	0	0	0	0	0	

Ship Change Document *CTN 55 PHASE I-INITIATION*

Refresh | Save | Submit | Delete | Back to SCD | Export | Status | Back | ?

essary in orange cells.	Then Year Dollars (TY$) in Thousands											
PE	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	To Complete	Total	To Complete (Constant Year $)
Subtotal (By FY)	0	0	0	0	0	0	0	0	0	0	0	0	0

s.	Then Year Dollars (TY$) in Thousands											To Complete (Constant Year $)
FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	To Complete	Total	
											0	
											0	
											0	

uantities or ship class quantities.	Prior	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	To Complete (> FY16)	Total
y in orange cells.													
													0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0

Module 3B

SHIPMAIN

Module 3C: AFOM Process

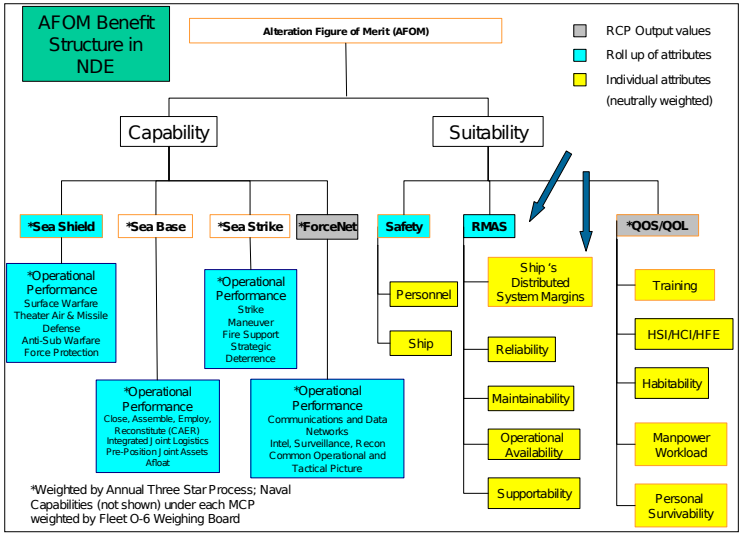
SHIPMAIN AFOM CONOPS

umbered Fleet/TYCOM Priorities

NAVAL POWER 21

CFFC/CNO Annual Guidance

3-Star Board (Annual): Set Benefit Structure Weights for Naval Capability Packages and MCPs



Weights may change annually or as directed by the SHIPMAIN Flag or O-6 Boards in response to world events or changing priorities

Ship Change Document (SCD)

(Weighted Benefit Structure in NDE): TYCOM(s) Assign Index Values to MCPs and Suitability Scales

Technical Assessm

ost Benefit Analys

Module 3C(R)

Program or Fleet Alteration

AFOM Calculated by NDE using TYCOM Rating Scale Inputs

Decisio n Boards

Yes

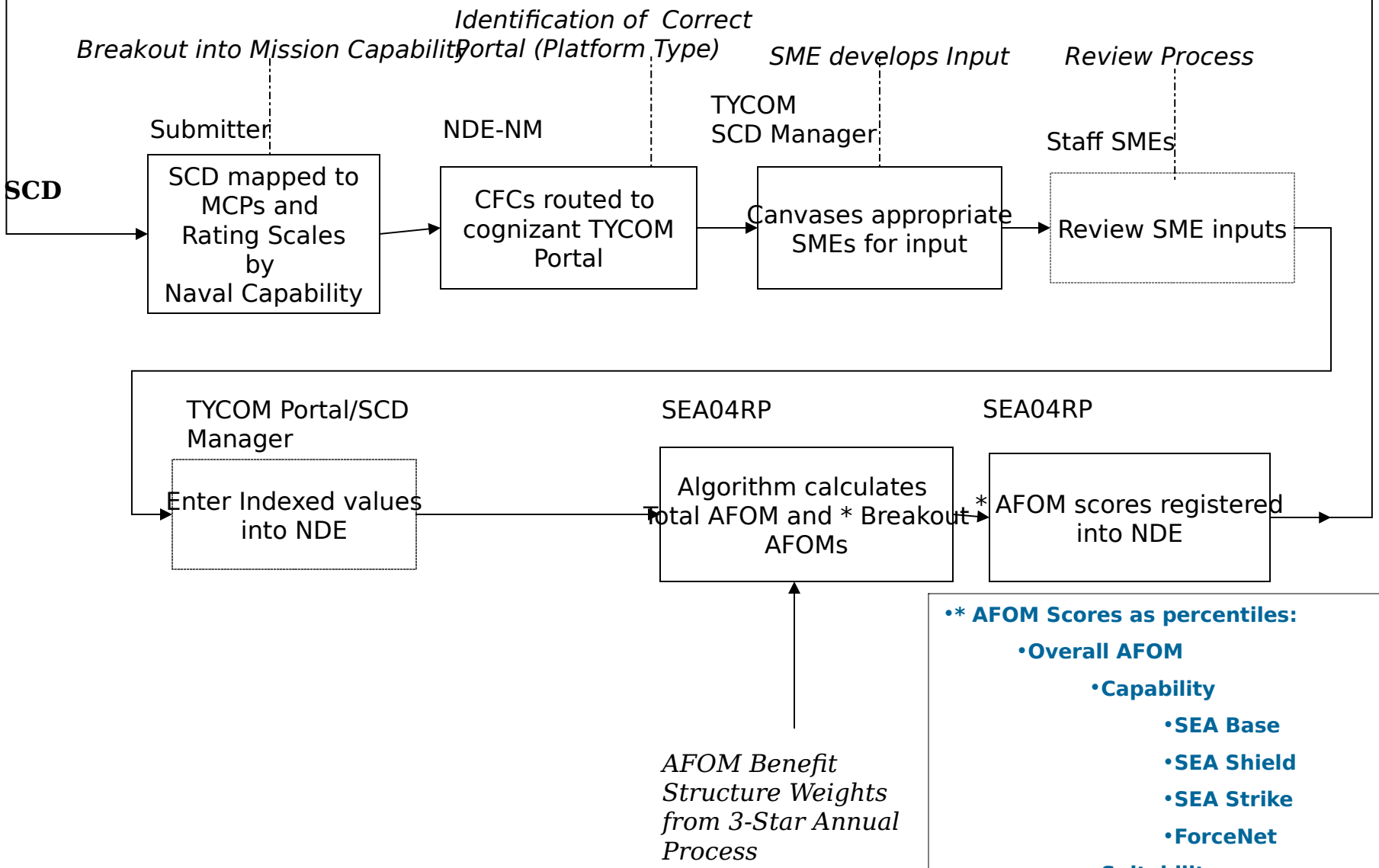
O-6, 1-2 Star, 3-Star Decision Boards

No

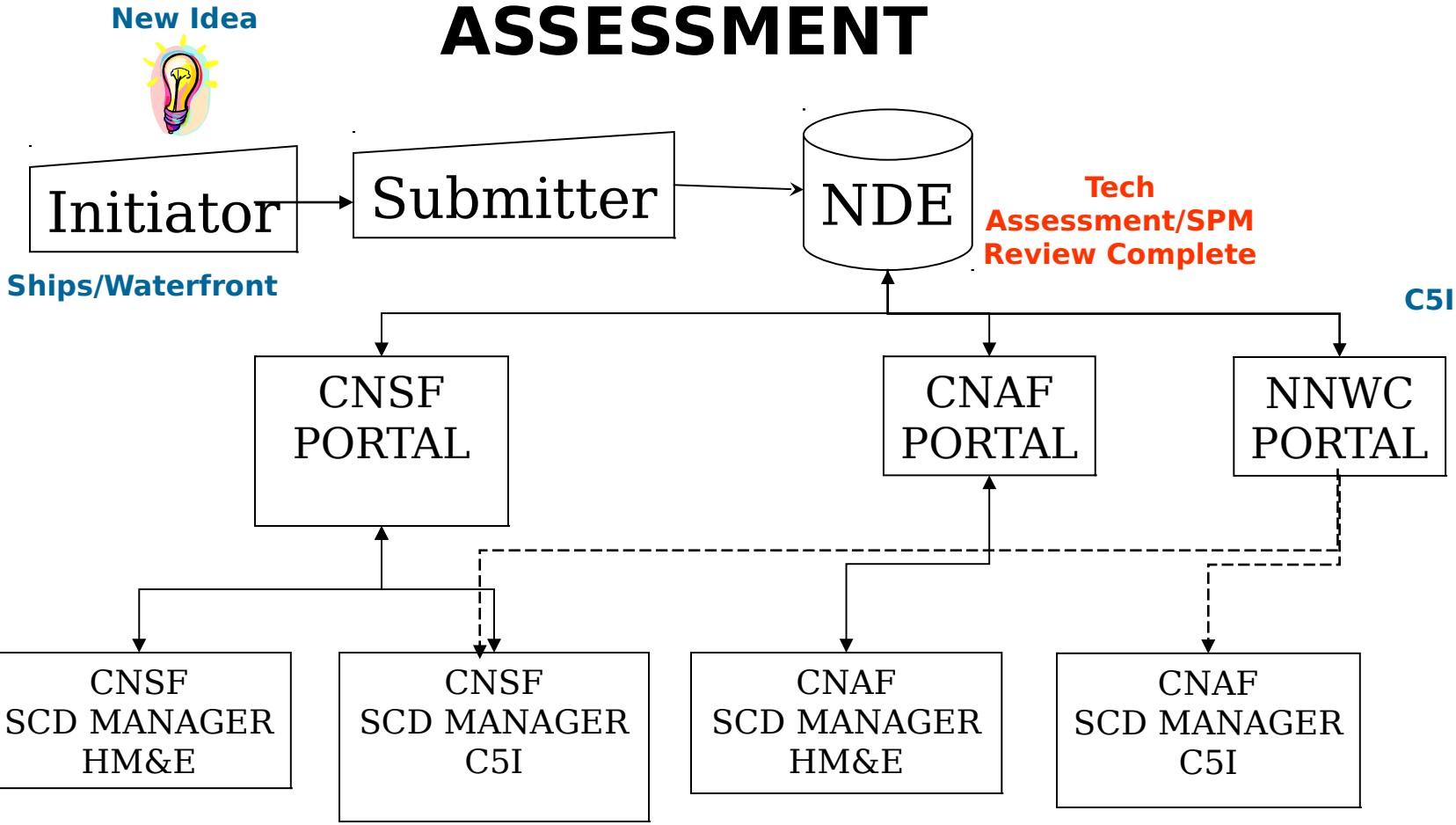
Process Flow (Calculate AFOM)

SPM Review

Outputs to RCP



SCD FLOW FOR TYCOM AFOM ASSESSMENT



Example Program Alteration through the Process

- **Example: CIWS Block IB**
- **Step 1: Submitter (mandatory) enters AFOM specific data in SCD: Naval Capabilities Checklist**
- **Step 2: SPM sends (forward once TA complete) to appropriate TYCOM based on Platform Type**
- **Step 3: Capabilities Mapping notifies TYCOM of which Scales to use for assigning Index Values in AFOM Benefit Structure**
  - **All Twelve (12) Suitability Scales mapped for every SCD**
- **Step 4: TYCOM canvasses Staff SMEs (and others) for information**
- **Step 5: TYCOM assigns Index values for all Suitability and Specific Naval Capabilities (from Step 1 mapping) into NDE**
  - **Rating scales begin at default value of “No Change” until TYCOM(s) enter values**
  - **TYCOM Adds Qualitative Comments in AFOM Comments Box to describe value added/benefit to the decision board**
- **Output: AFOM Calculated by NDE and displayed as a Percentile against all other ship changes in a particular Phase**

	1	2	3	4	5	6	7
Attribute	Significant Degradation	Degradation	Marginal Degradation	No change	Marginal Improvement	Improvement	Significant Improvement
Surface Warfare							X

Standard Index Scale

Default Value

Sea Shield (F1)

Force Protection (F2)

- ✓ Protect Against SOF and Terrorist Threats
- Mitigate Effects of CBRNE

Surface Warfare (F3)

- ✓ Provide Self-Defense Against Surface Threats
- Conduct Offensive Operations against Surface Threats

Under Sea Warfare (F4)

- Provide Self-Defense Against Subsurface Threats
- Neutralize Submarine Threats in the Littorals
- Neutralize Open Ocean Submarine Threats
- Counter Minefields from Deep to Shallow Water
- Breach Minefields, Obstacles, and Barriers from Very Shallow Water to the Beach Exit Zone
- Conduct Mining Operations

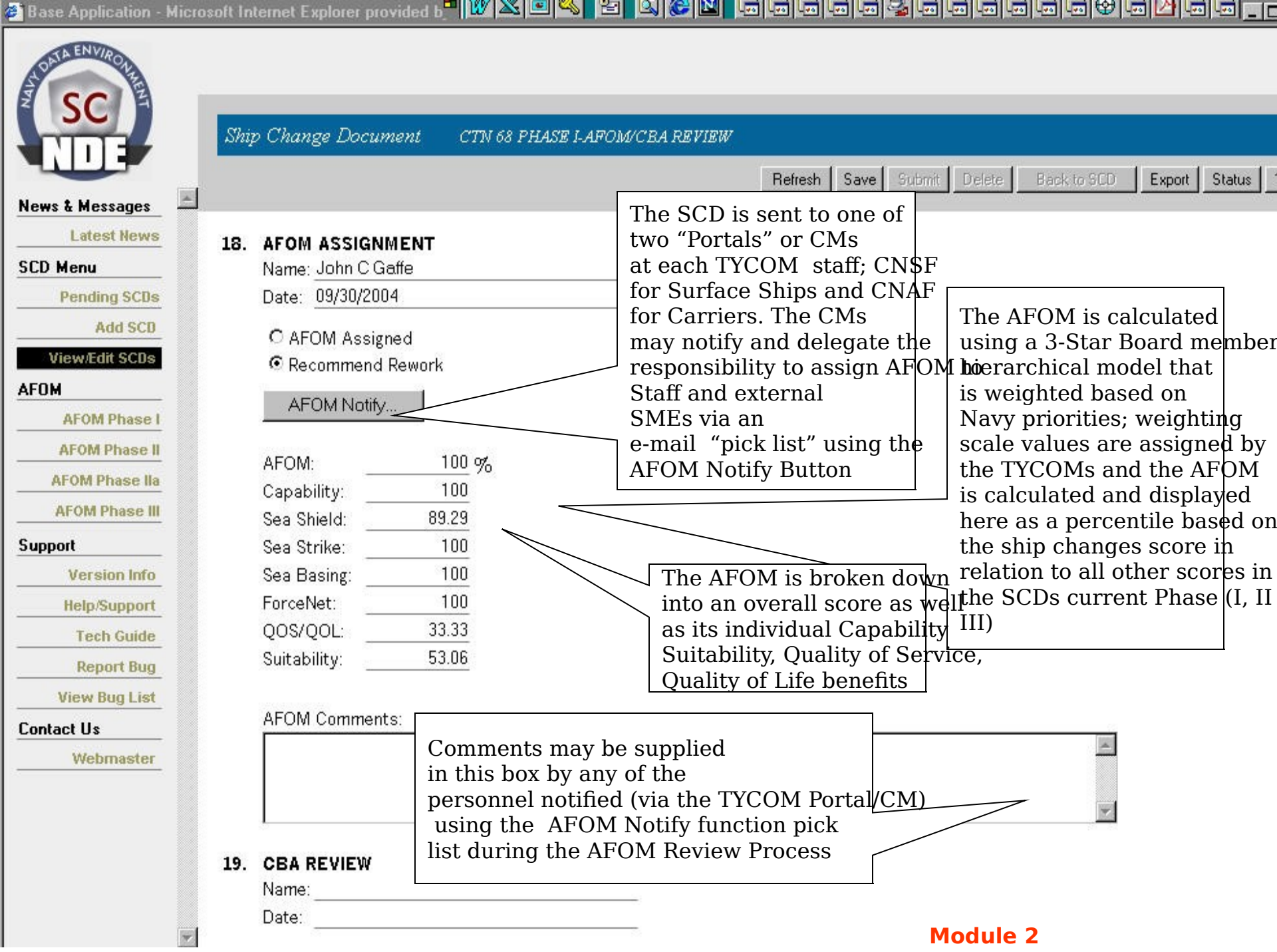
Theater Air and Missile Defense (F5)

- ✓ Provide Self-Defense Against Air and Missile Threats
- Provide Maritime Air and Missile Defense
- Provide Overland Air and Missile Defense
- Conduct Sea-Based Missile Defense

Example: CIWS 1B TYCOM Rating (as mapped to SCD by Submitter and validated by TYCOM)

F1-F4: Annual Weight Established by 3-Star Board

Sea Shield Capabilities SCD Checklist


Base Application - Microsoft Internet Explorer provided b
NAVY DATA ENVIRONMENT
SC
NDE
News & Messages
Latest News
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Add SCD
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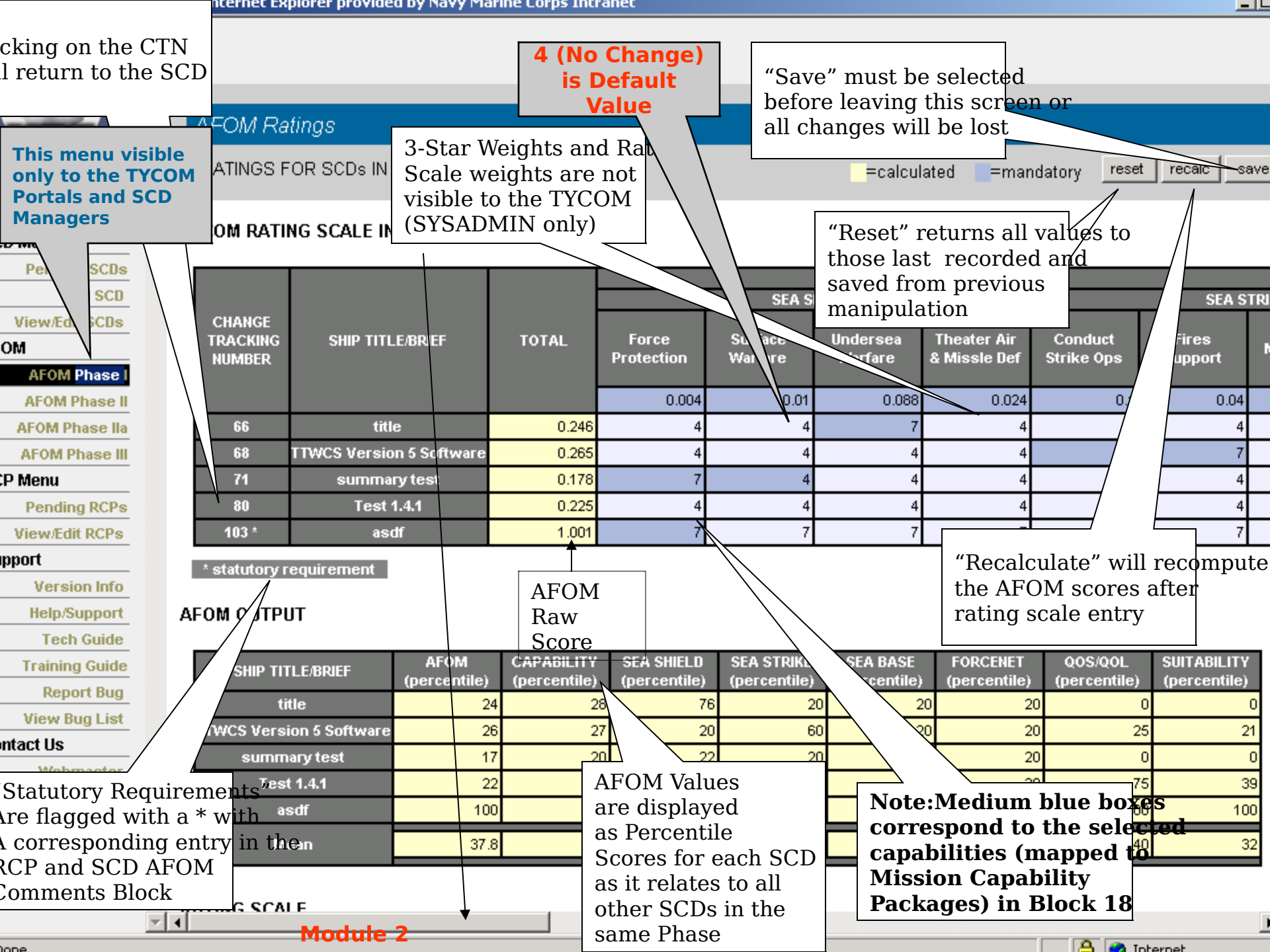
AFOM Phase I
AFOM Phase II
AFOM Phase IIa
AFOM Phase III
Support
Version Info
Help/Support
Tech Guide
Report Bug
View Bug List
Contact Us
Webmaster
Ship Change Document
CTN 68 PHASE I-AFOM/CBA REVIEW
Refresh
Save
Submit
Delete
Back to SCD
Export
Status
18. AFOM ASSIGNMENT
Name: John C Gaffe
Date: 09/30/2004
AFOM Assigned
Recommend Rework
AFOM Notify...
AFOM: 100 %
Capability: 100
Sea Shield: 89.29
Sea Strike: 100
Sea Basing: 100
ForceNet: 100
QOS/QOL: 33.33
Suitability: 53.06
AFOM Comments:
19. CBA REVIEW
Name:
Date:
The SCD is sent to one of two “Portals” or CMs at each TYCOM staff; CNSF for Surface Ships and CNAF for Carriers. The CMs may notify and delegate the responsibility to assign AFOM to Staff and external SMEs via an e-mail “pick list” using the AFOM Notify Button
The AFOM is calculated using a 3-Star Board member hierarchical model that is weighted based on Navy priorities; weighting scale values are assigned by the TYCOMs and the AFOM is calculated and displayed here as a percentile based on the ship changes score in relation to all other scores in the SCDs current Phase (I, II III)
The AFOM is broken down into an overall score as well as its individual Capability Suitability, Quality of Service, Quality of Life benefits
Comments may be supplied in this box by any of the personnel notified (via the TYCOM Portal/CM) using the AFOM Notify function pick list during the AFOM Review Process
Module 2


cking on the CTN
l return to the SCD
This menu visible only to the TYCOM Portals and SCD Managers
4 (No Change) is Default Value
"Save" must be selected before leaving this screen or all changes will be lost
3-Star Weights and Rat
Scale weights are not visible to the TYCOM (SYSADMIN only)
"Reset" returns all values to those last recorded and saved from previous manipulation
AFOM Ratings
ATINGS FOR SCDs IN
=calculated
=mandatory
reset
recalc
save
OM RATING SCALE IN
CHANGE TRACKING NUMBER
SHIP TITLE/BRIEF
TOTAL
Force Protection
Undersea Theater Air & Missle Def
Conduct Strike Ops
0.004
0.088
0.024
0.04
66 title 0.246 4 4 7 4 4
68 TTWCS Version 5 Software 0.265 4 4 4 4 7
71 summary test 0.178 7 4 4 4 4
80 Test 1.4.1 0.225 4 4 4 4 4
103 * asdf 1.001 7 7 7 7
* statutory requirement
"Recalculate" will recompute the AFOM scores after rating scale entry
AFOM Raw Score
AFOM C TPUT
SHIP TITLE/BRIEF
AFOM (percentile)
CAPABILITY (percentile)
SEA SHIELD (percentile)
FORCENET (percentile)
QOS/QOL (percentile)
SUITABILITY (percentile)
title 24 28 76 20 20 20 0 0
TWCS Version 5 Software 26 27 20 60 20 20 25 21
summary test 17 20 22 20 20 0 0
Test 1.4.1 22 75 39
asdf 100 100
37.8 32
Statutory Requirements Are flagged with a * with A corresponding entry in the RCP and SCD AFOM Comments Block
AFOM Values are displayed as Percentile Scores for each SCD as it relates to all other SCDs in the same Phase
Note:Medium blue boxes correspond to the selected capabilities (mapped to Mission Capability Packages) in Block 18
Module 2
SCDs
SCD
View/Ed SCDs
OM
AFOM Phase I
AFOM Phase II
AFOM Phase IIa
AFOM Phase III
CP Menu
Pending RCPs
View/Edit RCPs
upport
Version Info
Help/Support
Tech Guide
Training Guide
Report Bug
View Bug List
ntact Us